Revelstoke Timber Supply Area
Timber Supply Review

Summary of Public Input

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This is a summary of the public input received on the Timber Supply Review in the Revelstoke Timber Supply Area. This summary does not assess the feasibility or validity of the input or whether it relates to the clearly defined mandate of the chief forester in the allowable annual cut determination.

Revelstoke Timber Supply Area

Background

As part of the review of timber supply in the Revelstoke Timber Supply Area, two opportunities were provided for public input. The first followed release of the Revelstoke Timber Supply Area *Data Package* and *Information Report* in November, 1997. The *Information Report* was a non-technical summary of the draft data and management assumptions that were to be applied in reviewing the timber supply for the Revelstoke Timber Supply Area. A 30-day review period, ending December 22, 1997, was provided for the public to comment on these documents.

On December 12, 1998, the British Columbia Forest Service released the *Revelstoke Timber Supply Area Analysis Report* and *Public Discussion Paper*. The public was encouraged to review and comment on the accuracy of the information in these documents and to provide additional information during the 60-day review period that ended February 12, 1999. As the review period was through the Christmas break, the deadline was extended to February 28, 1999.

This report summarizes the input received during both public review periods. This information was provided to the chief forester for his consideration when he reviewed the allowable annual cut for the Revelstoke Timber Supply Area. The first section of this summary outlines the public review process implemented by the Forest Service, and describes the types of public input received. The second section summarizes the public input in sufficient detail to indicate the range of input received. The original submissions (with personal identifiers removed in accordance with the *Freedom of Information and Protection of Privacy Act*) can be reviewed at the Columbia Forest District office.

Public Review Process and Response

Columbia District staff actively solicited public input on the Timber Supply Review in the Revelstoke Timber Supply Area through the following actions:

- the Data Package and the Revelstoke Timber Supply Analysis Report were available at the district office.
- meetings regarding both the Data Package and Analysis Report were held with representatives from local government, the forest industry and other interest groups, as well as individuals.
- a meeting was held with the local newspapers to encourage articles.

As Table 1 shows, about 55 individuals attended the information sessions. The Columbia Forest District also received four written submissions on the Data Package and eight submissions on the Timber Supply Analysis Report (see Appendix 1).

Activity (No. of participants)	**Date**
Information sessions	
Elected officials	
Revelstoke City Council (4)	12/12/98
Interest groups	
Minister's Advisory Committee (20)	12/97, 12/12/98, 2/4/99
Forest workers (8)	2/15/98
Licensees (13)	12/15/97, 12/12/98
Other	
Media (6)	11/20/97, 12/12/98
General public (4)	12/17/97

Table 1: Participation in public information activities

Revelstoke Timber Supply Area

Public Input

In this section, public input on the information presented in the Timber Supply Review documents for the Revelstoke Timber Supply Area is summarized under the following headings:

- Data Package (and Information Report)
- Timber Supply Analysis Report (and Public Discussion Paper)
- Other comments

Data Package

Land Base Factors

Three forest industry submissions maintain that a 20-metre road width reduction for current and future roads is excessive, noting that a review by Evans Forest Products indicates an average road width of 11 metres. As well, the submissions say Forest Practices Code requirements for roads (e.g., endhauling) and for trails and landings (e.g., rehabilitation) mean less area will be rendered unproductive. Evans also asserts that no loss of growth should be attributed to winter conventional skid trails, as the soil is protected by snow pack and frost. Bell Pole notes that fill slopes retain their productive capacity and that the growth of stands adjacent to roads is enhanced by reduced competition for light and nutrients.

Bell Pole questions the 90 per cent reduction used for areas identified as environmentally sensitive due to severe regeneration problems. Their submission says stands in these areas are usually harvestable and generally a comparable stand to the original can be regrown. The Interior Lumber Manufacturers' Assoc. (ILMA) says it is difficult to assess land base removals for environmentally sensitive areas because the areas involved have not been quantified in the Data Package.

The ILMA expresses the same concern about lack of quantification of areas removed from the timber harvesting land base due to low productivity. Their submission requests the modelling protocol and suggests minimum volume should be the criterion for defining low productivity sites (not average diameter). The ILMA also questions the 100 per cent removal of areas with problem forest types and requests a review of the last 10 years harvest data base to refine this assumption.

Existing Forest Inventory

Parks Canada's submission says WAG runs, cruise data and professional judgment support the contention that volumes of existing stands are overestimated. This submission attributes the overestimation to a lack of spatial timber supply analysis and the over-estimation of volume in mature and old-growth stands. In particular Parks Canada suggests inadequate assessment of rot and breakage may be the reason the new inventory confirms the volume estimates of the old inventory.

Expected Rate of Growth and Productivity

Parks Canada's submission recommends the need for a more conservative estimate of future yields, particularly due to inadequate assessment of losses from disease and insects. The submission cites results from recent research, indicating improved disease resistance in stands with a major deciduous component. Given these uncertainties, plus the effects of climate change, Parks Canada suggests unmanaged stand models may be more appropriate in the Interior Cedar-Hemlock Zone.

The ILMA supports the recognition that site indices for stands older than age class 6 are underestimated and asks that a more accurate estimate be used for all species in the base case timber supply forecast.

Minimum Harvestable Age
The ILMA expresses concern about basing the minimum harvestable age on a minimum diameter, which they say would extend the age of many poor site stands well beyond what is reasonable. They ask that minimum harvestable age be based on a percentage of the maximum annual growth a stand is expected to achieve.

Regeneration Delay
Bell Pole suggests the regeneration delay used in the analysis (two years) should be reduced by the average age of planting stock used in the Revelstoke Timber Supply Area.

Forest Cover Constraints
Two forest industry submissions ask for confirmation that national parks will be recognized as contributing to forest cover requirements, and point out the need to update the 1956 parks inventory data. In addition, the ILMA asks for confirmation that there will be a surrogate for operability defined for parks; in other words, forest cover requirements that must be met on operable land can also be met on "surrogate" operable land within parks. Bell Pole says in the watershed zone forest cover requirements should be based on the gross watershed area rather than just on the operable forest.

Biodiversity
The ILMA expresses concern that the landscape unit boundaries and biodiversity emphasis options defined in the Kootenay-Boundary Land Use Plan Implementation Strategy are not being used in the analysis. The association maintains these constitute "current management" since the Land Use Plan has been accepted as government policy.

In their submission, Parks Canada notes that the local land use planning body (the Minister's Advisory Committee, or MAC) is recommending biodiversity zones based on a proportional contribution of what occurs naturally on both operable and inoperable forest land. Parks Canada says obtaining late seral targets (mature and older forests) from inoperable and already constrained areas will constitute a significant loss of that type of habitat. For example, their submission notes that national parks are managed on the basis of natural disturbance regimes and cannot be assumed to comprise mostly older forests over time. The agency says requirements for late seral habitat are already very low, and further reductions appear unwarranted as gains to timber supply would be minimal while habitat impacts could be severe.

Parks Canada also expresses concern about the trend to large cutblocks. They say without longer rotations and defined FENS (forest ecosystem networks), large blocks will not reduce fragmentation and can have various negative impacts on stream flows, blowdown potential, etc. The agency also suggests that FENS are or were becoming current practice.

Wildlife
The ILMA requests consideration of the government direction that as many Wildlife Tree Patches as possible come from the non-contributing land base. Parks Canada notes that the wildlife tree targets were based on the assumption that non-contributing areas would provide additional habitat. They express concern that these constrained areas are now expected to provide 50 per cent of the targets.

Parks Canada also recommends that contiguous caribou habitat with connectors to herds in the Golden Timber Supply Area should be modelled.

Non-Recoverable Losses
Three forest industry submissions note that the methodology to assess these losses is much improved over the previous Timber Supply Review. However, they express concern that losses are modelled as a constant over time and recommend instead that they be gradually stepped down to reflect increased access and decreased losses in younger forests.

Timber Supply Area Analysis Report

Size of the Timber Harvesting Land Base
Three submissions address the issue of the additional 19,000 hectares of productive Crown forest land added since the last Timber Supply Review. All three note the need to reconcile this change within the timber supply analysis.

Bell Pole questions some blocks that have been reclassified from deciduous-leading to deciduous, removing them from the timber harvesting land base. The ILMA asserts that the reduction in land base to account for roads and trails is excessive, and asks for a more systematic and measurable approach. They also ask for clarification about the status of the loss factor study and about the methodology used to remove cedar-hemlock stands from the land base as problem forest types. A consultant's submission says these types are being harvested and should be included in the operable land base.

Two industry submissions say West Twin Creek should be included in the operable land base now that access is possible. One suggests the operability line in the Revelstoke TSA should be adjusted to include all identified helicopter-logging areas.

Forest Inventory Factors
Two submissions question the 60 per cent increase in projected available timber compared to the previous Timber Supply Review. These two, along with Parks Canada, maintain that cruise and scale data indicate less volume coming out of mature stands, particularly cedar-hemlock, than the inventory would indicate. An independent survey and a conservative approach to estimating mature volumes are suggested to address this uncertainty. The ILMA is of the opinion that the current inventory is being used well beyond its intended design uses, although updated by models. The association asks what the implications of recent inventory audits are to this timber supply analysis.

Four submissions comment on the results of the Old Growth Site Index (OGSI) study. The results are noted as suggesting a significant upward pressure on timber supply, much more than the 10 per cent tested in the sensitivity analysis on estimates of volumes in existing natural stands. The submissions say the study results should be included, in spruce stands at least, in this timber supply analysis.

Expected Rate of Growth
Parks Canada expresses concern about the timber supply model used to estimate volumes of regenerated stands. Their submission says the TIPSY model is based on optimal stand densities, 100 per cent conifer composition, and rapid growth. Parks Canada says this model is not appropriate for cedar-hemlock stands and for stands in the caribou management zone, and they provide examples of recent research supporting their opinion.

Regeneration Delay
Bell Pole says the age of planting stock should be deducted from the two-year regeneration delay used in the analysis.

Decay, Waste and Breakage
Two submissions comment on the study of loss factors done in the Revelstoke TSA. One asks the status of the study and the other says the results are known if not formally compiled and should be considered in this analysis.

Forest Cover and Green-up Requirements in Watersheds

Bell Pole expresses disagreement with the approach used for forest cover constraints in domestic and community watersheds (that a maximum of 25 per cent of the operable land base can be non-greened up at any time). The company says the approach used in this TSA is not a standard approach in the Nelson Forest Region, and requests the scientific rationale for it.

Bell Pole also questions the use of nine metres as the green-up height. The company says this approach ignores the effects of partial hydrological recovery; in other words hydrological effects are on a continuum from three metres to 9.5 metres (full hydrological recovery). According to Bell Pole, 6.25 metres (representing 50 per cent of full hydrological green-up) should be the threshold for modelling purposes, based on the assumption that the TSA contains an even distribution of regenerating areas of different heights.

Visually Sensitive Areas

According to Bell Pole, cover constraints to meet visual quality objectives should not be based on only the operable land base, but on the entire visible area or at least the whole forested visible area (including areas in parks). The company says the requirements for retention and partial retention visually sensitive areas are unduly restrictive. The ILMA questions whether the approach taken in the Revelstoke TSA is consistent with the provincial direction to reduce visual quality impacts.

Biodiversity and Old Growth

Parks Canada expresses concern that the assumptions used in the analysis (to meet all mature and old growth targets from inoperable and already constrained areas) do not reflect current practice or the objectives of the Forest Practices Code. The agency says both the Kootenay-Boundary Land-Use Plan and the Revelstoke MAC plan recommend that contributions be assigned proportionally from the operable and inoperable land base. The agency also believes that direction for Forest Development Plans also is for proportional contributions.

Both Parks Canada and an individual submission note that parks and inoperable areas cannot be assumed to continuously age. They say parks are managed on the basis of natural disturbance regimes and can't be assumed to provide old forest requirements.

Wildlife Habitat, FENS and Fish

Parks Canada is concerned with reductions in the inoperable land base and environmentally sensitive areas. The agency says these areas were assumed to be a major, supplementary source of wildlife habitat in the Biodiversity Guidebook, and that significantly increased harvesting in these areas may result in a need to increase wildlife habitat guidelines. In addition, Parks Canada says forest ecosystem networks (FENS) are needed to augment inadequate riparian buffers, supplement minimal wildlife tree retention, and provide for connectivity and movement of wildlife.

The Parks Canada submission also suggests more flexibility may be possible in meeting caribou habitat needs. In addition to old forests, new research shows that younger stands in the ESSF, if open spacing is retained, can also provide the lichen loads needed by caribou. The agency says trade-offs in rotation length and stand density in the caribou zone should be modelled in the analysis.

The submission from the Revelstoke and Area Minister's Advisory Committee notes local uncertainty about ungulate winter range identification and suggest that information recently collected by the committee's technical team be considered in the timber supply review.

Parks Canada also expresses concern about the current direction toward large, coalescing clearcuts. The agency says this is likely to have a severe impact on aquatic systems and fish populations due to the severity of rain-on-snow events in this TSA. The resulting increase in peak flows in streams draining these large openings will destabilize banks and increase sedimentation, according to this submission.

Partitions
Bell Pole recommends a partitioned cut of 10,000 cubic metres for harvesting above the operability line or in areas of problem forest types below the operability line.

Non-Recoverable Losses
The ILMA notes its appreciation of the methodology used for estimating these losses. Bell Pole says these losses should not be modelled as a constant over time, as this does not reflect improved access and the decrease in risk to growing stock.

Parks Canada expresses the opinion that non-recoverable losses are understated in the analysis. The agency says climate warming and forest management practices such as juvenile spacing and thinning are predicted to increase the incidence of disease, insects and fire.

Other Comments

Many submissions commented on factors or issues other than those specifically covered by Timber Supply Review documents. These comments are summarized in this section.

Timber Supply Review Process and Methodology
Several submissions comment on the improvement in methodology and process over the previous Timber Supply Review. Two forest industry submissions note their disappointment with the Data Package, saying that the number of undefined areas and the lack of quantified assumptions made review difficult, if not impossible.

Parks Canada notes the difficulty in defining current practice in the aftermath of CORE, the MAC plan, and recent direction from government regarding Biodiversity Guidebook implementation. The agency recommends a number of additional analyses, such as the impacts of avalanche mitigation measures, current practices for wildlife and FENS, and the effect of maintaining a more balanced age-class distribution. They also suggest a spatial analysis be done for at least a representative portion of the TSA, to compare with the results of the non-spatial analysis.

The Revelstoke Minister's Advisory Committee submission expresses concern about the use of non-spatial analysis, particularly as applied to forest cover constraints. The committee asks the chief forester to consider the results of the spatially explicit timber supply analysis conducted for Revelstoke's TFL 56. Those results showed a substantial difference between non-spatial and spatial analysis.

Parks Canada also questions the rationale for the increased long-term harvest level and the lack of a requirement to step down until the fourth decade (vs 12 per cent declines each decade in the previous analysis). The agency is concerned that this is an optimistic forecast compared to the previous one which did not consider mountain caribou requirements and other non-timber values now recognized under the Forest Practices Code.

Current Practices and Objectives
One individual submission suggests the forest industry should be managing for quality rather than quantity of timber, and that maximizing old-growth timber should be part of the strategy to nurture the value-added sector.

Parks Canada says the ongoing reduction in green-up requirements and increase in opening size are questionable from a biodiversity point of view, and that large blocks, in conjunction with the recent weakening of the Biodiversity Guidebook, do not support biodiversity objectives. The agency says the fragmentation and loss of mature and older forests is of major concern.

An individual submission says the Timber Supply Review must address the acceptability of deciduous species in order for Columbia Forest District policy to change. The current policy is that deciduous species will not be considered as preferred or acceptable crop trees. This submission maintains that birch in particular is under-appreciated and under-utilized. He says birch products are promoted successfully in Europe and Japan, and artisans are trained to work with birch, yet no policy exists to provide a long-term quality supply of birch sawlogs and peelers, hampering the development of a strong, viable, value-added hardwood sector.

Harvest Levels

Four submissions express their opinion on the harvest level to be set by the chief forester. A consultant supports increasing the initial harvest level to 300 000 cubic metres per year. The ILMA and Downie Timber encourage an unspecified increase in the allowable annual cut, citing various favourable upward pressures (e.g., OGSI results, efforts to reduce visual quality objectives, etc.). Bell Pole recommends an increase in the allowable annual cut (AAC) of 10 to 12 per cent, and notes that all major licensees took a 15 per cent reduction in AAC as a result of the first Timber Supply Review in the Revelstoke TSA. The company says any contemplated uplift in AAC should go to those licensees. An individual submission says harvests should be tied to processors who demonstrate the highest ratio of employment per cubic metre of wood.

Another individual submission says the transition to the long-term harvest level should start now, rather than shifting the pain of transition to future generations. In addition, this submission says harvest reductions now will lend urgency to the development of the value-added sector and more fairly represent the caution needed to address the many uncertainties surrounding the timber supply forecast.

Appendix 1

Submissions received by the Columbia Forest District

Submissions received on the Data Package

Government agencies

Parks Canada, Mt. Revelstoke & Glacier National Parks

Industry

Evans Forest Products Ltd., Golden
Bell Pole Co. Ltd., Salmon Arm
Interior Lumber Manufacturers' Association, Kelowna

Submissions received on the Timber Supply Analysis Report

Government agencies

Parks Canada, Mt. Revelstoke & Glacier National Parks

Industry

Downie Timber Ltd.
Interior Lumber Manufacturers' Association, Kelowna
Bell Pole Company, Salmon Arm
Mike Cummings, Kootenay Wood Vine

General public

Two individuals
Revelstoke and Area Land Use Planning Minister's Advisory Committee